## ABSTRACT OF THE DISCLOSURE

A packet-based switching device includes a plurality of physical layer interfaces, such as SONET/SDH layer 1 interfaces, and one or more higher-layer processors, such as SONET/SDH layer 2 or 3 processors. One or more digital cross-connects are interposed between the physical layer interfaces and the higher-layer processors. Each digital cross-connect routes communications traffic between the physical layer interfaces and the higher-layer processors. A packet switch core, such as an asynchronous transfer mode (ATM) switch core, routes traffic among higher-layer processors.